

IN 4/200.10/3/1
c.2

COLORADO STATE PUBLICATIONS LIBRARY



3 1799 00119 3002

VOLUME 3
NUMBER 1



JOURNAL
OF THE
FORT LOGAN
MENTAL HEALTH CENTER

~~LIBRARIES~~
Colorado State University
Fort Collins, Colorado 80523

SPRING 1965
SUMMER 1965

The Journal of the Fort Logan Mental Health Center is a quarterly, scientific journal which publishes original articles on new treatment methods of emotional disturbances, with emphasis on hospital community psychiatry and therapeutic milieu.

Editor

Samuel Schiff, M.D.

Editorial Assistant

Selma Kraft

Executive Secretary

Alice Mueller

Editorial Board

Ethel Bonn, M.D.

Stanley Boucher, M.S.W.

Donald Bourg, M.D.

Brenda Dickey, Ph.D.

Sidney Glassman, Ph.D.

Helen Huber, R.N.

Alan Kraft, M.D.

Howard Krasnoff, M.S.W.

Sherman Nelson, Ph.D.

Harold Shure, M.D.

Bernice Stone, M.A.

Margaret Weeks, R.N.

Inquiries about subscriptions, manuscripts, orders, and change of address notices should be sent to Editor, Journal of the Fort Logan Mental Health Center, 3520 West Oxford Avenue, Denver, Colorado 80236.

PUBLISHED BY

Fort Logan Mental Health Center

Alan Kraft, M.D., Director

Department of Institutions

David Hamil, Director

State of Colorado

John Love, Governor

Copyright 1965 by the Fort Logan Mental Health Center.

SPRING – SUMMER

CONTENTS

1965

Rehabilitative Psychotherapeutic Principles for the Hospital Community, the Treatment Team, and the Individual. <i>Russell E. Mason</i>	1
The Reaction of Mental Health Workers to Change. <i>H. G. Whittington</i>	9
Patient Group Meetings on Medications. <i>David F. Kazzaz and Samuel Kohan</i>	23

The Fort Logan Mental Health Center is Colorado's second state hospital, which currently serves almost half the population of the state. Its organization follows as much as possible the recommendations of the Joint Commission on Mental Illness and Health. Concepts of milieu therapy are strongly utilized, with the emphasis on expansion of professional roles and the involvement of the patient's family and his community as much as possible in treatment. The hospital is entirely open and relies heavily on transitional forms of treatment. One-half of its patients are in day care, and evening care is being instituted. Geographic and administrative decentralization are utilized, with the same psychiatric team following the patient through admission, treatment, and outpatient care.

REHABILITATIVE PSYCHOTHERAPEUTIC PRINCIPLES FOR THE HOSPITAL COMMUNITY, THE TREATMENT TEAM, AND THE INDIVIDUAL

RUSSELL E. MASON, PH.D.,* *Psychologist*
Veterans Administration Hospital, Palo Alto, California

PURPOSE AND ORIENTATION

There is a need to crystallize agreement on a set of rehabilitative principles that have been found to be effective in assisting mentally and emotionally disturbed hospital patients to find their way back to productive lives in the community. The selection of these particular points of emphasis stems primarily from clinical experience and observations within different hospital communities, therapeutic teams, and psychotherapeutic programs. The perspective taken here focuses on hospital and therapeutic team programming more than on individual or group psychotherapeutic techniques. Systematic concepts of this type can be utilized to critically evaluate present rehabilitation programs.

PRINCIPLES

1. *Exposure of patients to constructive activity is more psychotherapeutic than permitting inactive withdrawal.* It is therapeutic for a patient to be exposed to some activity in which he has the opportunity to focus attention away from his painful feelings and preoccupations and onto stimulating activities. By this means he can interact with other people in positive and constructive ways and so be helped to come out of his psychological withdrawal. As

*3801 Junipero Serra Boulevard, Palo Alto, California.

a rule, only relatively limited periods with little opportunity for activities are needed. Hopefully these might permit reintegration, but more often such periods result in either rumination or withdrawal.

Even though repeatedly, gently, and consistently encouraged, each patient can be expected to participate in activities only to the extent that his preoccupations, fear, and withdrawal abate. Without consistent encouragement, chronically withdrawn patients can hardly be expected to participate in activities. With the use of tranquilizing (and "energizing") medications for anxious and psychotic patients and with the use of other somatic treatments for severely depressed patients when needed, even acute, newly admitted patients are usually able to participate in activities to some degree within days or weeks.

2. *All personnel in the hospital community and on the therapeutic team should maintain the orientation and goal that each patient at some time may be able to function at least at a minimal level in a setting outside the hospital, rather than overtly or covertly adopt custodial attitudes resigning the patient to indefinite or lifetime hospitalization.* With the introduction of therapeutic activity programs and of newer somatic treatments, many patients who, under less intensive rehabilitation programs, had seemingly been resigned to a lifetime of custodial care leave hospitals to become useful members of their communities. An institution's therapeutic atmosphere and its rehabilitation orientation can be evaluated in terms of a continuum that at one pole employs maximum treatment, opportunity, and encouragement aimed toward patient rehabilitation and discharge. At the other pole are seen custodial attitudes (a) that provide a minimum of treatment and activity, (b) that encourage the patient to form habits, attitudes, and routines allowing possible "comfortable" hospital living but conflicting with community adjustment requirements, and (c) that hold no particular interest in the individual patient's being discharged and functioning effectively in the community.

At the same time, serious question can be raised as to whether mentally and emotionally disturbed patients should be removed from hospital settings before a degree of rehabilitation that will enable them to be productive at least in some respect and to interact with other people to some effective degree has been achieved. In lieu

of this, they may continue to participate in rehabilitative activity programs in treatment settings, and there are the ever increasing possibilities of new helpful medicinal and other treatments.

3. *Hospital and team standards, attitudes, habits, routines, and requirements should approximate those of the community in which the patient may live insofar as practicable and therapeutic for each individual patient.* Hospital and treatment communities can be, and often are, "worlds within themselves" with different standards, expectancies, demands, requirements, and attitudes than those found in the surrounding nonhospital communities. Patients in a hospital or institution are relatively helpless in relation to authority figures and are greatly influenced by the attitudes of the personnel who "keep" or "serve" them, as the case may be. Apart from the important factors of leadership, relative therapeutic orientation, and administrative acumen at the management levels, the attitudes that effect patients in interpersonal contacts may at one extreme show friendliness, interest, understanding, respect, and encouragement of realistic thinking. At the other extreme, the attitudes of attending personnel may show paternalism, superiority, aloofness, competitiveness, disinterest, confusion, helplessness, ridicule, and humorous or unwitting encouragement of unrealistic thinking.

Perhaps even more therapeutically negative than such overt attitudes are deviant habits and living patterns of patients that are often covertly encouraged. These include: milling around or sitting inactively in large groups on large porches or in large rooms; dependency on others to initiate or allow activities; the rewarding of docility, dependency, and compliance and the discouraging of initiative, independence, and assumption of responsibility; the ascendance of routinized schedules over individual needs and inclinations; and the patients' expectancy of satisfaction of minimal basic needs without the requirement of self-motivation and self-assertion. Such habits make ordinary community living strange to the patient and do not provide him with the habits needed for adjusting in the home and on the job. Even more deviant habits are often overlooked in hospitals and institutions.

A custodial, less demanding, overly permissive institutional community often appeals to and reinforces the regressive dependency

needs and withdrawal tendencies of patients. With this, they are encouraged to become chronic residents of the institution rather than to work through their problems and to overcome or assimilate inner disturbances and the deficiencies of their nonhospital community environment.

4. *Privileges, passes, participation in more complex activities, and other increased degrees of freedom and of responsibilities should be utilized in flexible and responsive ways such that therapeutic standards of behavior are rewarded and reinforced; consequently, a gradual increase of freedom for the patient should be proportionate to and dependent upon his ability to assume responsibilities for the therapeutic standards of behavior that may be considered requisite for the degree of privileges available to him.* Although most of the rehabilitation concepts presented here are applicable to acute patients, the principles are much more essential for the rehabilitation of long-term patients. This would seem to be particularly true regarding the need to reward behaviors that are conducive to rehabilitation and to discharge into the community. Conversely, there is a need for deprivation of privileges for more regressed patients who have not reached the point of maintaining minimum standards of social conventions acceptable to the nonhospital community. For such patients, privileges only provide opportunities for withdrawal and provide reinforcement of acting out of unrealistic and psychotic ideation and tendencies.

In this consideration, a fine and very important distinction is made in that one can show nonpunitive acceptance and respect for the individual, but at the same time communicate to him realistic assessments of and constructive alternatives for his unrealistic behaviors and tendencies. By virtue of the fact that the patient needs to be removed from environments normal to our society, he may be considered to have the responsibility for accepting the treatment and rehabilitation program prescribed for him. Conversely, by virtue of their profession and because of the abnormal restriction of freedom of patients, the treatment staff may be considered to have the responsibility not only for instituting effective treatment but also for helping the patients work through their feelings and attitudes concerning treatment and concerning other realistic implications of their emotional or mental disorders insofar as feasible.

Emphasis should be placed on the fact that patients are sensitive and generally responsive to the value systems espoused either overtly or covertly by the therapeutic staff responsible for them. It is this responsiveness, be it however gradual, that permits long-term patients to relearn rehabilitative patterns of behavior that may enable them to function adequately in the community. The more aware the staff can be of the values implied in their reactions to the patients, then the more effectively these can be channeled in the direction of rehabilitation.

The patient who has come to the hospital or treatment center has been unable to resolve his problems sufficiently either in trying to think through them by himself or with others. He is then exposed to and, hopefully, encouraged to participate in activity programs that may focus his attention away from his painful feelings and conflictual preoccupations. If he is fortunate, he may, in addition, have an opportunity to refocus his attention on his problem more effectively in psychotherapeutic contacts with professional people. Also, he might participate constructively in therapeutic community discussions and in ward government activities. The patient's participation in rehabilitation activities may, in itself, gradually bring relief, relaxation, and opportunity for reintegration.

In order to help the patient in progressive recovery, a series of graded activity programs should be available so that he can proceed from the more simple, less demanding activities to the more complex activities and to greater degrees of responsibility. Also, in order to accomplish rehabilitation in the minimum or optimum time, frequent communications of the patient's progress to those professionally responsible for him are needed, as are also prompt responses by those persons in adapting the individual patient's activity schedule to positive and negative changes in his condition.

Usually for the most effective rehabilitation, the patient should be under the therapeutic supervision of one person or one treatment team, notwithstanding responsive changes in treatment or ward placement. This provides continuity of treatment, opportunity for identification with given therapists, and consistency of understanding and policies for the patient. Such a rehabilitation policy can be accomplished, for example, by treatment teams being assigned to an intermediate type of ward; in addition, bed-space quotas for

each team can be allotted on the more closed and the more open types of wards or facilities.

5. *The orientation of personnel in relating to patients should involve positive feelings, personal respect, understanding, consistency, the prevention of harm, and the encouragement of therapeutic activities, of self-understanding, and of realistic thinking and behavior.* Perhaps the most basic factor relating to the attainment of this principle is the extent to which personnel are able to give priority to the needs of the patients over their own immediate needs and feelings. An index of this direction of energy would be the amount of working time that the given aide, supervisor, administrator, nurse, physician, social worker, or psychologist devoted to thinking about patients' rehabilitation needs and acting on their observations and conclusions.

In order to effectively devote one's time to the patients' needs, a person (a) must be willing to forego more immediately pleasurable pursuits, (b) must be willing to interact with the patients and handle their withdrawal, anxieties, fears, demands, hostilities, depressions, and transferences on realistic, therapeutic bases, and (c) must have some understanding of the patients' conditions and of the implications of his own behavior for the patients' rehabilitation. The range of relative investment in patient rehabilitation is broad. For example, it varies to the extent that those persons establishing the treatment center budget emphasize economy versus optimum rehabilitation needs and also to the extent that the nursing assistant (aide) or activity supervisor spends working hours effectively with the patients versus playing games for their own amusement, reading magazines, displacing neurotic emotional cathexis on the patients, or doing jobs themselves while capable patients remain idly withdrawn, rather than therapeutically supervising the patient in developing work habits.

There is one primary assumption and implication of the principle now under consideration. That is: all personnel contacts with patients have an implicit effect that is either positive or negative psychotherapeutically. Even the consistent greeting of patients by a staff person when he passes them seems to have an effect of bringing patients out of their withdrawal and of encouraging their emotional investment in other human beings. The psychotherapeutic

aspect of any contact can be viewed as differing in terms of depth, direction, and goals. The depth of the interaction with the patient can be considered in terms of strength, intensity, and permanency of feelings involved and in terms of the degree of the patient's becoming aware of relatively nonconscious ideation, feelings, or behavior. Thus, both the degree of interpersonal relatedness and the degree of insight are involved. The direction of the interaction with the patient can be considered in terms of the immediate effect of the interaction on the direction of thought and behavior of the patient, whether this be achieved by relatively nondirective, selective techniques, or by techniques involving directive encouragements or prohibitions. The goals of the interaction are considered as the implicit or explicit aims that go beyond the immediate situation of the interaction and relate to the patient's future adjustment and living.

From the standpoint of ward team therapeutic supervision, it seems that nothing can be more valuable in facilitating rehabilitation than regularly scheduled ward rounds. During ward rounds, as many members of the therapeutic team as possible can contact each patient at the same time in order to allow him to express his own feelings and problems and to encourage him realistically toward rehabilitative goals, step by step. For a ward team to be able to do this effectively, it is essential that communication channels be established so that they know how the patient is functioning on his activities, his privileges, and his passes.

6. *In order to ascertain whether the patient has achieved optimum rehabilitation and whether he may be able to function in the noninstitutional community, it should be considered whether he can first function effectively with the maximum responsibilities permissible in the treatment setting and especially whether he is able to work effectively for the maximum period available in industrial therapy or related programs. Adequate functioning on a job in the treatment center and the ability to successfully assume the responsibilities of privileges and passes for a reasonable time provide simple minimum criteria in order for a patient to be considered for discharge or for a more advanced rehabilitation program. That a patient can function adequately in these respects does not guarantee successful functioning in nonhospital community living, since*

many other factors are, of course, involved in this. On the other hand, if the patient has not been able to achieve such a minimal level of effective functioning *when so encouraged*, it is very unlikely that he will be able to succeed for very long periods in outside community living unless he is given very close supervision in the community.

Many programs have demonstrated success in providing an intermediate rehabilitative step between hospital and community living. These include member-employee or patient-employee programs; foster home or home care programs; supervised homelike cottages, small dormitories, or wards providing special privileges and responsibilities; halfway houses providing supervision and assistance in community living; day-night and night-day hospital plans in which part of the day is spent out of the institution in the home or on the job. Outpatient treatment, job placement, and financial assistance can also be important factors in the successful rehabilitation of patients. Another important aspect of the patient's readiness to leave the institution is the consideration of whether or not his planned posthospitalization environment is compatible with his needs and limitations.

The principles outlined here may be considered as tentative procedures and techniques for achieving effective therapeutic community programs and rehabilitation. Even though almost all of the points emphasized are widely accepted throughout the mental health professions, there exist such wide variations in handling of emotionally disturbed people that the different principles and techniques presented should provide a basis for discussion and controversy.

THE REACTION OF MENTAL HEALTH WORKERS TO CHANGE*

H. G. WHITTINGTON, M.D.,** *Director*
Community Mental Health Services
Division of Institutional Management
State Department of Social Welfare, Topeka, Kansas

INTRODUCTION

Not too many years ago we could comfortably focus our entire attention upon the psychiatric patient, his disability and his dysfunction, and his needs. An increasing variety of studies, however, has compelled us to look with equal care at the needs, disabilities, and distortions of the clinician as one participant in the therapeutic transaction.

Perhaps Hollingshead and Redlich (1) confronted us for the first time with the importance of examining the effect of social and economic variables upon clinical practice. In their study it became apparent that patient and clinician alike are locked in a matrix of social and economic forces which clearly affect the nature, duration, style, and result of the treatment process.

The present paper is an initial investigation of the belief and personality systems of professionals, as they affect the individual clinician's reaction to the changing structure of psychiatric services. As such, this research is strongly influenced by the studies of Milton Rokeach (3) and colleagues. In a series of interrelated

*The opinions expressed in this paper are those of the author and do not represent official policy of the Division of Institutional Management.

**State Department of Social Welfare, State Office Building, Topeka, Kansas 66612.

studies, Rokeach investigated the nature of authoritarianism and intolerance, and the relationship of these belief and personality systems to cognitive processes, reactions to change, and problem solving. He reported:

Our results strongly support the view that these scales (Dogmatism and Opinionation) represent more general measures of authoritarianism and intolerance than others currently in use It will perhaps suffice here to say that those who score extremely high on this scale (Dogmatism) are shown to differ consistently from those who score extremely low in the ability to form new belief systems This leads us to suggest a basic characteristic that defines the extent to which a person's belief system is open or closed; namely, the extent to which the person can receive, evaluate, and act on relevant information received from the outside on its own intrinsic merits, unencumbered by irrelevant factors in the situation arising from within.

Describing some general implications of his work, Rokeach further states (3):

First, the findings suggest that important aspects of mental functioning are attributable to personality rather than intellectual ability as such. Second, the findings suggest that a person's belief system has pervasive effects on different spheres of activity—ideological, conceptual, perceptual, and esthetic Third, our research demonstrates that the psychological processes involved in ideological functioning can be studied in laboratory situations by analogy. Fourth, our findings point to the fact that we have succeeded reasonably well in distinguishing and measuring two interrelated aspects of personality and of cognitive functioning. There are many ways of talking about these two aspects: the resistance to change of beliefs and the resistance to change in systems of beliefs; rigidity and dogmatism; the analysis phase and the synthesis phase in thinking and perceiving.

Within any group ideological conflicts are always in the process of developing and being resolved. A major schism apparently has arisen in the field of psychiatry during recent years over the question, "Should the state hospital system be abandoned as a social and professional failure?" The far-reaching conclusions of the Joint Commission on Mental Illness and Health (2) on this question have had an enormous impact on mental health workers. Some of the Commission's critics believe that most of the recommendations were rather pedestrian and mundane; others, that they were radical, irresponsible, and inflammatory.

Most striking, however, has been the great anxiety expressed by partisans of the state hospital system about the quite direct criticisms and suggestions for reform. In recent years many professional meetings have been preoccupied with a dialectical struggle between proponents of the centralized, hierarchical, authoritarian, more or less traditional state hospital systems and proponents of decentralized, nonhierarchical, community-based treatment philosophies.

The acrimony of this debate, the fearfulness of participants on both sides, and the vitriolic nature of some of the allegations and assertions prompted the author's preliminary study of the differing reactions of professional people to recommendations concerning the reorganization of psychiatric practice.

Kansas lends itself particularly well to this type of study. Its state hospitals have been steadily improving for the past fifteen years. On a rational level, professional persons working in state hospitals have no reason to feel particularly criticized or to be offended by the Joint Commission's recommendations, many of which are already in effect in Kansas. In addition, most of the persons who are working in community mental health settings in Kansas have received at least part of their training and experience in the institutional program in our state. Since the various training programs are well integrated among all of the disciplines in Kansas, the body of shared beliefs should be larger here than in many states.

METHOD

A 90-item questionnaire, combining the Opinionation test instrument (Form C) and the Dogmatism test instrument (Form F) developed by Rokeach and associates, and a ten-item Readiness for Change Scale developed by the author, was mailed to a number of professional people working in state hospital and community mental health center settings. They were asked to score each of the items on a six-point scale ranging from minus 3, "I Disagree Very Much," to plus 3, "I Agree Very Much." The numerical

scoring was then converted to a positive value by adding plus four to each item rating, and a separate score was developed for the Readiness for Change Scale, Dogmatism Scale, and the two subordinate scales in the Opinionation questionnaire (Right Opinionation Scale and Left Opinionation Scale).*

Questionnaires were sent to all 19 physicians, 28 psychologists, and 29 social workers in Kansas community mental health centers; replies were received from 10 physicians, 19 psychologists, and 14 social workers. Questionnaires were sent to 18 physicians, 23 psychologists, and 29 social workers employed in the state's institutions; replies were received from five physicians, 13 psychologists, and 17 social workers. In all, 146 questionnaires were sent out and 78 were returned. For most of the groups the

*From Rokeach regarding the Dogmatism Scale: "The primary purpose of this scale is to measure individual differences in openness or closedness of belief systems . . . the scale should also serve to measure general authoritarianism and general intolerance."

"The purpose of the Opinionation Scale is to serve as a separate measure of general intolerance. Recall the assumption that the more closed our belief systems, the more we will reject others who disagree with us, and the more we will accept others because they agree with us . . . Half the items are worded in such a way that agreement with them indicates left opinionation, and half are worded in such a way that agreement with them indicates right opinionation."

Some normative values obtained by Rokeach are as follows:

Dogmatism Scale, Form E, mean scores:	
English Colleges II	152.8
English Workers	175.8
Ohio State U. III	142.6
V. A. Domiciliary	183.2

Total Opinionation Scale (T.O.), Left Opinionation (L.O.), and Right Opinionation (R.O.), Form C and CE, mean scores:

	L.O.	R.O.	T.O.
Michigan State U. III	61.2	80.8	142.0
English Colleges I	77.8	67.2	145.0
English Workers	75.4	80.9	156.3

the return rate was between 40 percent and 60 percent. For physicians working in the state hospitals the return rate was only 27 percent.

RESULTS*

Several hypotheses were developed before the study was conducted, and the data were analyzed to evaluate specific hypotheses. Each of these will be discussed in turn.

Hypothesis 1: It was speculated that scores on the Dogmatism Scale, which according to Rokeach and his colleagues are associated with closed belief systems in the individual, would be negatively correlated with the scores on the Readiness to Change Scale.

The data, summarized in Table 1 and Table 2, do not support this hypothesis.

TABLE 1

RELATIONSHIP BETWEEN DOGMATISM AND READINESS TO CHANGE SCORES: HOSPITAL PERSONNEL*

	DOGMATISM SCORES		
	Less than 120	120-139	More than 140
	N	N	N
READINESS TO CHANGE			
SCORES: Less than 40	0	4	4
40-49	6	4	9
More than 50	2	4	2

*The Pearson product-moment correlation indicates no relationship between Dogmatism and Readiness to Change Scores for hospital personnel ($r = 0.17$).

*Statistical analyses were performed by Timothy Schumacher, M.D.

TABLE 2

RELATIONSHIP BETWEEN DOGMATISM AND READINESS
TO CHANGE SCORES: CLINIC PERSONNEL*

		DOGMATISM SCORE		
		Less than 120	120-139	More than 140
		N	N	N
Readiness to Change Scores	Less than 40	2	1	1
	40-49	8	5	3
	More than 50	12	5	6

*Pearson product-moment correlation indicates no relationship between Dogmatism and Readiness to Change Scores for clinic personnel ($r = 0.26$).

Hypothesis 2: It was speculated that scores on the Dogmatism Scale would not be related to discipline. As summarized in Table 3, this hypothesis is supported for the group as a whole. Some interesting differences between the hospital and clinic personnel appear in the results, although the size of the sample precludes definite conclusions. It appears that the physicians working in state hospitals score higher on the Dogmatism Scale than do physicians in the clinics; and psychologists working in hospital settings also score higher than do psychologists working in community mental health settings.

TABLE 3

MEAN DOGMATISM SCORES

	Total Group*	Hospitals	Clinics
M.D.	126	139	120
Psychologist	122	132	111
Social Worker	125	124	127

* t scores were as follows: t (M.D.: Psychologist) = 0.040, $p > 0.05$; t (Psychologist: S.W.) = 0.003, $p > 0.05$; t (M.D.: S.W.) = 0.006, $p > 0.05$.

Hypothesis 3: It was speculated that opinionation scores would not be related to discipline. Again, as summarized in Tables 4 and 5, the hypothesis was generally supported for the total group. With the exception of psychologist-social worker differences on Left Opinionation, there were no significant interdisciplinary differences in either Right or Left Opinionation scores. (Two interesting intra-professional differences can be noted between settings: psychologists in hospitals tended to have higher scores on the Right Opinionation Scale, as did social workers in hospitals as compared to their counterparts in the clinics; and physicians in hospital settings tended to have higher scores on the Left Opinionation Scale than did their counterparts in clinics.)

TABLE 4
MEAN RIGHT OPINIONATION SCORES

	Total*	Hospitals	Clinics
M.D.	66	70	64
Psychologist	60	67	53
Social Worker	64	69	58

* t (M.D.: Psychol.) = 0.061, $p > 0.05$; t (M.D.: S.W.) = 0.206, $p > 0.05$;
 t (Psychol.: S.W.) = 0.001, $p > 0.05$.

TABLE 5
MEAN LEFT OPINIONATION SCORES

	Total*	Hospitals	Clinics
M.D.	61	67	58
Psychologist	70	72	73
Social Worker	61	58	66

* t (M.D.: Psychol.) = 1.415, $p > 0.05$; t (M.D.: S.W.) = 0.004, $p > 0.05$;
 t (Psychol.: S.W.) = 2.005, $p < 0.05$.

Hypothesis 4: It was speculated that higher Dogmatism scores would be correlated with membership in the middle-management group. It was not possible to test this hypothesis adequately because of insufficient numbers of personnel in the various status groups sampled. However, the limited data available did not tend to support this hypothesis.

Hypothesis 5: It was speculated that Opinionation scores would also be highest in the middle-management group. Again, numbers were too small to permit satisfactory study of this hypothesis. The data that were available indicated a trend for the upper-echelon personnel; i.e., those in the higher levels of management tended to be less authoritarian and to move towards Left Opinionation in their responses to the questionnaires.

Hypothesis 6: It was speculated that there would be differences between groups in the hospitals and in the centers along several dimensions: (a) that general authoritarianism (as measured by the Dogmatism Scale) would be greater in the hospital personnel (The results are summarized in Table 6, and the data support this hypothesis.); (b) that general intolerance (as measured by Right and Left Opinionation Scores) would be greater in hospital personnel (The

TABLE 6

COMPARISONS BETWEEN HOSPITAL AND CLINIC PERSONNEL:
DOGMATISM AND OPINIONATION

	MEAN Dogmatism Score*	MEAN Right Opinionation Score**	MEAN Left Opinionation Score***	MEAN Total Opinionation Score
Hospital Personnel	131	68	64	132
Clinic Personnel	118	59	65	124

* $t = 2.45, p < 0.01$

** $t = 2.81, p < 0.01$

*** $t = 0.00024, p > 0.05$

data support this hypothesis for Right Opinionation, but not for Left Opinionation.); and (c) that clinic personnel would have higher scores on the Readiness to Change Scale (Table 7 demonstrates a slight but nonsignificant difference in mean scores.).

TABLE 7

COMPARISONS BETWEEN HOSPITAL AND CLINIC PERSONNEL: READINESS TO CHANGE

	MEAN READINESS TO CHANGE SCALE*
Hospital	43
Clinic	49

* $t = 6.651$ $p < 0.01$

A larger sample and more detailed analysis of the data would be necessary to understand more completely the interrelationships between authoritarianism, intolerance, and willingness to accept change. A more careful study of the Readiness to Change Scale, in an attempt to validate the relationship between high scores on this scale and openness towards innovations in mental health practice, would also be necessary.

ITEM ANALYSIS OF READINESS TO CHANGE SCALE

Some interesting differences appeared in an item analysis comparing the responses of mental health center personnel to those of hospital personnel on the ten items of the Readiness to Change Scale. In general, the mental health center personnel more readily accept and more actively support the recommendations of the Joint Commission on Mental Illness and Health. They tend to be more critical of the state hospitals. They more actively support shifting the major focus of services from the hospital to the community. They tend to place a higher value on the role of the private psychiatrist

in meeting total community needs for mental health services.

One unexpected finding was that *neither* the staff of the state hospitals nor of the community mental health centers strongly supported the principle of open staff privileges for state hospitals, which would allow private practitioners to hospitalize and supervise the treatment of their own patients.

It was also discovered that most hospital personnel who have a definite opinion do tend to see the staff of community mental health centers as carrying a load of responsibility commensurate with that of the personnel in a state hospital setting.

The data are summarized in Table 8.

TABLE 8

NUMBER OF RESPONDENTS AGREEING *vs* DISAGREEING
FOR EACH ITEM ON THE READINESS TO CHANGE SCALE

Item	DISAGREE		AGREE		UNDECIDED	
	Hospital	Clinic	Hospital	Clinic	Hospital	Clinic
1	12	9	11	18	11	16
2	13	13	5	13	16	17
3	2	2	28	38	4	3
4	11	10	14	26	9	7
5	16	17	9	9	8	17
6	7	6	16	27	11	10
7	9	10	16	22	9	11
8	8	7	11	19	12	17
9	11	7	12	27	8	9
10	2	1	13	19	19	23

A detailed analysis of the ten items of the Readiness to Change Scale revealed significant intergroup differences. (For the purpose of this analysis, scores of minus 1 and plus 1 were discarded, minus 2 and minus 3 were lumped as *Disagree*, and plus 2

and plus 3 lumped as *Agree*. Using this method of scoring, Table 8 lists the numbers of individuals agreeing and disagreeing.

Item 1. "The reports of the Joint Commission on Mental Illness and Health are the most significant psychiatric documents of the decade." Hospital personnel were fairly evenly divided on this item, whereas mental health clinic personnel agreed by a ratio of 2 to 1 with the statement. Differences are not significant by chi square analysis.

Item 2. "The state hospitals in this country are, as one psychiatrist leader has said, 'monuments to our failure'." Mental health clinic personnel were about evenly divided in agreeing and disagreeing concerning this statement, whereas hospital personnel disagreed by a 2.5 to 1 margin.

Item 3. "We should not wait until our hospitals are adequately staffed before expanding community mental health clinics." Both hospital and clinic personnel agreed strongly with this statement.

Item 4. "Private psychiatrists make a significant contribution to comprehensive care for the mentally ill in this state." While hospital personnel were fairly evenly divided between agreeing and disagreeing, mental health clinic personnel agreed by a 2.5 to 1 margin with the statement.

Item 5. "Our state hospitals should have open staff privileges, like other community hospitals, so that private practitioners can hospitalize and treat their own patients in the state hospitals." Both groups tended to disagree with this statement, and apparently supported the continuation of the present closed staff system.

Item 6. "Patients are better off treated in their home communities, even if compromises in 'ideal' treatment must be tolerated." Hospital personnel tended to agree with this statement by a margin of more than 2 to 1, whereas mental health clinic personnel agreed with a more than 4 to 1 margin.

Item 7. "The staff of a community mental health center carries a load of responsibility equal to a senior psychiatrist in a state hospital." Professional people in both hospital and clinic settings tended to agree with this statement. An unsuspected finding was that almost one-fourth of the clinic respondents disagreed with this statement. However, in reading over the item, it seems there is some

ambiguity. The intent was to phrase it in such a way that disagreement could mean that the respondent thought that the staff of the community mental health center carried *less* responsibility than a senior psychiatrist in a state hospital; but the resultant wording is such that disagreement could have meant that the respondent felt that a community mental health worker carried *more* responsibility than a hospital worker.

Item 8. "The model of forward area treatment for mental breakdowns, as practiced in the Army during the Korean War, is an appropriate model for community-based treatment." Again, both groups tended to agree with this statement, but the ratio of clinic personnel agreeing to those disagreeing was higher than for the hospitals.

Item 9. "Most patients now treated in state hospitals could be treated as well, or better, in a good psychiatric unit in a community general hospital." Clinic personnel tended to agree in an almost 4 to 1 ratio, while opinion was only slightly weighted in favor of agreement for hospital personnel.

Item 10. "The recommendations in *Action for Mental Health* are sound, by and large, and destined to reshape the pattern of American psychiatric practice." Both hospital and clinic groups showed some agreement with this statement, but most individuals in both groups were undecided.

CONCLUSIONS

There seemed to be relatively minor differences between community mental health center personnel and that of state hospitals in comparing their opinionation and belief systems and their readiness to accept changes in patterns of service. In Kansas, at least, there seems to be a large enough body of consensually held beliefs and opinions to allow free and valid communication between the personnel working in community mental health settings and those in hospital settings. Both groups recognize the imminence of changing patterns of service and, in general, support the desirability of such changes.

It is the author's belief that this study has implications for facilitating the continuing development of a partnership between professional peers in state hospital settings and community clinic settings. Indeed, if the needs of the mentally ill are to be optimally met in our society, such a partnership, with mutual respect, mutual enrichment, and sharing of responsibility, is necessary.

REFERENCES

1. HOLLINGSHEAD, AUGUST and REDLICH, FREDERICK C., *Social Class and Mental Illness*, New York, John Wiley and Sons, 1958.
2. Joint Commission on Mental Illness and Health, *Action for Mental Health*, New York, Basic Books, Inc., 1961.
3. ROKEACH, MILTON, *The Open and Closed Mind*, New York, Basic Books, Inc., 1960.

PATIENT GROUP MEETINGS ON MEDICATIONS*

DAVID F. KAZZAZ, M.D.,** *Chief, Adult Psychiatric Division*
and SAMUEL KOHAN, B.S., *Pharmacy Section*
Fort Logan Mental Health Center, Denver, Colorado

INTRODUCTION

The psychological implications of medication-taking have been extensively explored in the many studies of placebo effects (1). In the practice of psychiatry these implications assume added importance. Patients who tend to somatize their emotional problems wish to be deluged with drugs. Some patients look to medicines for a magical cure, while others may refuse them because they feel that taking medication would imply that they are sick, and they feel certain that there is nothing wrong with them.

In the therapeutic community (2) patients are encouraged to take responsibility for themselves and for each other and to share with each other whatever knowledge, experience, or ability they find useful in achieving this goal. The staff in turn shares its knowledge of illnesses in order to help patients to understand their immediate problems and to cope with future ones. Medications are one element of treatment in the therapeutic community. If patients are expected to share responsibility for helping each other in all areas of therapy, they can and should have some knowledge of the indications for medications, their usual effects, and possible results of their abuses.

*The authors wish to acknowledge their indebtedness to Mrs. Alice Mueller of the Research Department, Fort Logan Mental Health Center, for her assistance in preparing this paper.

**3520 West Oxford Avenue, Denver, Colorado 80236.

Staff members on one of the adult psychiatric teams at Fort Logan Mental Health Center* felt that many patients suffering from similar emotional disorders and taking similar medications, in addition to those who could do better without medication, could share their experiences profitably. They believed that by sharing knowledge of medications and participating in decisions on their use, patients could benefit individually, and the total group could become more cohesive.

The physician finds it difficult to accept sharing knowledge about medications with any lay person and even more so with a group of patients. It is especially difficult in view of the elaborate system of secrecy traditionally associated with dispensing medications, as exemplified in the use of Latin in writing prescriptions. Invariably the physician feels he is being robbed of authority and may ask himself, "How can I trust a group of emotionally ill patients to make judgments on problems for which I am medically and legally responsible?" Yet, in order for such a group to be effective, some of this knowledge must be shared. It should be stressed that in the nonpsychiatric doctor-patient relationship a good deal of responsibility is actually left to the patient. Patients decide at which point to see the physician and what to report to him. They also decide whether to accept the full treatment course, modify it, or reject it altogether. Patients' families and close associates frequently influence these decisions. Society itself has demanded to know more about the drugs it takes and why. This interest has created difficulties, and, unfortunately, manufacturers and the public have abused some medications designated by the Food and Drug Administration as "over-the-counter items."

In a hospital setting, where the primary interest is not to sell certain drugs but to help patients with their problems, information about medications can be given in a helpful way. It should be emphasized, however, that medical-legal responsibility still rests with the physician.

*The authors are indebted to the Denver-3 team for its cooperation and interest in establishing the group meetings upon which this study is based.

PROCEDURE

Group medications meetings are held once weekly and are attended by all patients and staff on one of the teams. The president of the patient council chairs the meeting. The staff physician is responsible for determining the dosage, the specific type of medication, and for advising the group and the patient about possible side effects; he also retains a veto power over all decisions. In order to facilitate responsible discussion, he relates information on medications in simple language. Responsibility accompanies the freedom given to patients in discussing their prescriptions, and the group clearly establishes that individual patients may not change their medication schedules on their own initiative.

Because the group feels that the patients themselves should take the initiative in assessing their medication needs, it discourages asking each individual if he has a problem to discuss. Instead, the chairman asks the patients to volunteer to discuss their needs. If patients do not bring up problems voluntarily, staff members and other patients may report that difficulties do exist and need to be discussed.

Each patient who takes the floor states his medication request and his reasons for it, and the group discusses and votes on each of these. If the patient's request does not carry, the group may recommend and vote upon alternative measures. In either case, the vote is binding unless the physician makes it very clear that the ruling is unacceptable for medical reasons. The exercise of the veto is reserved for such medical considerations as toxic effects and other contraindications. Starting a patient on medication against the wish of the group constitutes another form of veto. Medication, no matter how emphatically recommended in the meetings, is not prescribed unless the patient has been seen by the physician and the prescription has been entered in the order book. Explanation of the medical reasons requiring veto of a decision usually elicits the active cooperation of the group. During the meeting the chairman records the general recommendations voted by the group, and the physician prescribes the appropriate drugs in keeping with acceptable dosage. The regulations for administration

of drugs by the nursing staff are the same as those in any hospital; prescriptions are properly written and processed through the hospital pharmacy.

If a patient misses a meeting with good reason, he may ask someone to present his request for discussion, with the understanding that the medication will not be prescribed until the patient is seen later by the physician. If it appears that his absence is an attempt to avoid discussion, the group tells him that they will not consider his request if he refuses to participate in the meeting.

New patients receive medication, if needed, without consulting the group, which is then informed of this action at the next meeting. New patients often show great reluctance to discuss their medication needs with the group. Reassurance from the total patient-staff group and observing other patients' willingness to discuss such problems helps to overcome this.

Between-meeting emergencies, such as undue side effects, the need for increased medication, or the onset of physical illnesses, are handled by the physician and reported at the next meeting. Some patients attempt to make all of their medication needs emergencies, but if the physician feels that the request is not urgent, he tells the patient to discuss the matter during the designated period. The physician may then discuss this behavior with the members of the group.

Requests range from starting medication or changing to a different one to continuation, increase, decrease, or discontinuation of the drug already prescribed. Both patients and staff question the patient about his request and very frequently ask the physician for specific information about the medication: "Will it help quiet the patient, or will it pep him up and make him less depressed? Will there be unpleasant reactions from it?" They are interested also in dosage, not in terms of milligrams, but whether the amount is heavy, moderate, or minimal. This is necessary in order to discuss increases, decreases, or discontinuation of medication more responsibly in relation to the patient's response and general condition. For example, when a patient is exhibiting side effects from heavy dosage and still needs the drug, he is advised by the physician that it is necessary to take less. The group

tries to help him understand the reasons for the decision. Similarly, if a patient wants to stop medication because of uncomfortable side effects, such as dryness of the mouth or mild dizziness, the group encourages him to tolerate these symptoms in order to gain the necessary benefit from the medication. Maintenance medication for general medical conditions such as epilepsy, diabetes, and other chronic conditions, is prescribed routinely outside the group but with its knowledge.

Changes of symptoms and general behavior are also reported by patients during the meetings. With the active participation of the physician and the rest of the staff, the group establishes the relation of the symptoms to medications. Frequently patients ask, "Did you investigate his physical condition thoroughly before deciding that his trouble was psychological?" Decisions about primary physical problems are referred to the physician. A patient with ulcerative colitis, who needs a combined pharmacological and psychological effort, might be maintained on a certain medical regime, but also may show a tendency to channel emotional problems into extra somatization. The group will then refer the somatic management to the physician and focus the discussion on the psychological component. A patient who complains of difficulty with sleeping may be asked, "Do you really need tranquilizers or sleeping pills?" Often he will be confronted with, "You really haven't told us about the problems that are causing the sleeplessness." The group, therefore, deals with patients who use medication as an escape measure by helping them focus on their emotional problems.

It is the duty of the patient and the group to report all they have seen or felt of the effects of medications. In some cases side effects overlooked by the patient who is experiencing them may be noticed by other patients. One patient may say to another, "I saw that you almost fainted yesterday," or, "Didn't you tell me that your skin itches?" The group then asks the physician what needs to be done. Such incidents are not matters for vote.

At times the members of the group—staff or patients—remind the patient that he has been observed to be too drowsy, emphasizing that this and other reactions should be reported. If staff members or patients observe any side effects during the week,

they notify the physician, who takes appropriate action. Such circumstances are reported to the group in the next meeting. Other members of the group who receive the same medication serve as very helpful observers for side effects within and outside of the meeting.

If the patient asks for increased medication, the group tries to determine whether he wants it because he expects a quick cure or because the quantity is really insufficient. The group is alert also to the possibility that the patient may be developing dependency upon or habituation to the drug and asks, "How are you going to stop?"

Group pressure is utilized to maintain adherence to directions for administration of medications. Sometimes patients either refuse medication or go through the motions of accepting it and later discard it. For example, a patient may deceive the staff by keeping the medication under his tongue, swallowing water, and then spitting out the pill. More often, patients on leave who do not wish to follow directions will accumulate prescribed medicines. When staff members or patients observe that a patient has been accumulating medicine or evading its administration, the group takes action to correct the irregularities. One member may recommend withdrawing medication because it was misused, while another might say, "No, he needs it—we'll have to see that he takes it properly."

At times group members may be influenced by their own feelings of anger at either the staff or a demanding patient. Despite the staff's attempt to convey the meaning of its action, the group may fulfill a patient's demand with the rationalization, "Let's give him the medication—he is obviously suffering." On such occasions the patient group is permitted to use a medications decision temporarily for psychological reasons if there is no specific contraindication. At the next meeting the consequences of irresponsible decision emerge when it becomes evident that the medication did not benefit the patient.

Although staff, especially nurses, have the duty to observe and report patients' reactions to medications to the physician and the group, they inadvertently overlook or forget to report incidents at times. Conversely, staff members may tend to adhere to the

common, but not always helpful, practice of relating exclusively to the patient. Members of the group confront the staff when they observe these extremes of approach. One nurse, who joined the team from an operating room setting, found it necessary to spend a long time with a patient and to report directly to the physician. When the group was asked the next week how they felt this particular patient was doing, the answer was, "What do you need us for? Mrs. B. has a private nurse." In the discussion that followed, both the patient and the staff agreed to share the responsibility of reporting.

DISCUSSION

In order to develop an effective system for involving patients in decisions about their medications, it was important to know if the patients would accept this responsibility willingly and if the staff would be willing to share its responsibility with the patients. The present culture of society does not provide a definite model that patients can follow. In most circumstances patients take their problems directly to the physician, who, they would like to feel, assumes exclusive responsibility for treatment.

The group medications meetings have been in operation for two years. During this period some advantages and some problems have become apparent. The acceptance of responsibility for participation in medications decisions appears to have served as another vehicle through which the effect of the therapeutic community is enhanced. It is the author's impression that side effects tend to be reported earlier and acted upon more quickly through multiple observers than when the sole responsibility rests with the physician and nurses. In this method, as well as in the traditional approach, difficulties arise with patients in maintaining their medication schedules and following directions. We feel, however, that mutual observation and shared responsibility reduces the possibility of patients taking their medications in other than the prescribed way. Manipulative and demanding patients are helped more effectively through this approach than in the conventional manner.

The effectiveness of the method with difficult patients may be illustrated by the following case:

M.M. was a 54-year-old, white, divorced female with a diagnosis of schizophrenic reaction. She exhibited an elaborate paranoid system, expressing suspicion of everyone in the hospital, in the state, and sometimes in the whole world. At various times she asked to be sent to an isolated convent, to an island, to Russia, or to some other planet. She had an underlying depression expressed in outbursts of tears and anger, using abusive and obscene language. She isolated herself from the group whenever possible, and she refused to take any medications by mouth or intramuscularly. Her need for medication was brought up in one of the meetings. The group told her that she seemed to be quite upset and therefore might benefit from medication. The patient attacked the group's right to discuss her problem, much less her treatment. When the group voted to give her medication, she stated that she would refuse the pills. One of the staff suggested that intramuscular injection could be used as an alternative to the pills. The group agreed to vote the alternative method if the patient refused oral medication. A few days after the patient was started on intramuscular medications, she stated that she was willing to take her treatment orally. In discussing her treatment in the next meeting, several patients reported that the early effect of the medication had disappeared during the latter part of the week. One member questioned whether the patient had actually been taking her medicine or finding some means of deceiving the staff. The physician agreed that this was possible; when the patient was asked if she had been taking her medicine, she refused to answer. When another patient asked if there were a way of checking, he was told that the staff could inspect the patient's mouth to see if she actually swallowed the pill. The group decided that this measure should be taken.

In the weeks that followed the patient tried many ways to avoid swallowing her medication. With the cooperation of the other patients and staff, and using her observable behavior and response, it was possible to detect some of the means she used to avoid medication, such as hiding the pills under her tongue, etc. At times she complained of various physical reactions in order to avoid taking the medication. The group then asked the physician if he had examined the patient and if she were actually having these reactions. They were told that some of these were objective reactions, such as the drowsiness and dry mouth, but there seemed to be no apparent physical reasons for some of the other symptoms.

The management of the medication and the patient's psychopathology were therefore integrated into the total treatment approach. M.M. had suffered rejection by all of the important figures in her

life—her parents, her husband, and her children. She had come to distrust and hate others and wanted only to withdraw from them. In previous treatment elsewhere an individual approach had not been successful.

In the group medications meetings she initially showed the same negative reactions. Later she became more comfortable and was able to accept the collective concern and interest. Her eventual compliance with group pressures came only after she felt able to trust the group. A few months after this achievement she could permit some individual contacts with staff and patients. She found out during this period that her attempts to repel others were met by persistent concern and interest. The improvement in her interpersonal relationships, which was begun in the medications meetings, gradually extended into other areas of treatment and community activities. Eventually she was able to make plans for her future and to leave the center.

Results of this approach suggest that patients view their medications more purposefully. Those who need drugs tend to accept the responsibility of taking them, and those who do not need medications seem better able to manage without them.

Initial reluctance to participate in group discussion of medication needs was one of the problems that was encountered. "We came here to be treated by the doctor, not by each other," is a comment that continues to arise, particularly when new patients enter the hospital, or when the patients as a group are unhappy with the staff. In the case of the new patient, other patients reassure him and explain that the ultimate responsibility does lie with the physician. In group reaction to the staff the discussion attempts to bring out the reason for this reaction. This problem has not proved insurmountable, although it has to be worked on from time to time.

It has been observed that some patients tend to impose their own points of view. A patient who desires medications may want everybody to have them, or vice versa. When the group is functioning well, it can effectively point out to the discussant that he is imposing his personal views without regard for the welfare of the other patients.

The reaction of many physicians to this approach has been skeptical at best. Some are willing to participate in such meetings and examine this method from close range; others have refused

even to talk about it. Even within the setting of the center, not all teams use this method and some refuse to consider it.

Much of the criticism revolves around the physician's fear of losing authority and relinquishing responsibility. Perhaps because of these apprehensions, many distorted descriptions of this approach have been presented. Patients are pictured as dictating their own treatment program to the staff and the staff is described as powerless and outnumbered by the patient group. The approach has been variously described as being a form of either "phony democracy," implying that patients are not given any real voice in the decisions, or as "too much democracy," implying the opposite.

Patients have expressed their approval of the group meetings by various means. In one instance following a meeting a visiting physician asked the group if they preferred this method to the traditional one-to-one approach. About 90 percent of the patients voted in favor of patient participation. It was interesting to note that before expressing their preference, the patients wanted to be sure that the visitor understood that they receive the full benefit of the physician's medical opinion, guidance, and recommendations. The final decision was his.

SUMMARY

In the therapeutic community setting the patient is involved as much as possible in his own treatment and that of his fellow patients, and the use of medications is no exception in this approach. A procedure has been described in which the need for medications, the type and dosage to be given, and the effects of drugs, are discussed in patient-staff groups in which recommendations are made by the group. Full medical-legal responsibility still rests with the psychiatrist and he may veto recommendations when he feels it is necessary. It is felt that this technique has helped patients assume greater responsibility for themselves and their fellows and has provided more comprehensive information for treatment planning.

REFERENCES

1. BONN, ETHEL M. and KRAFT, ALAN M., "Fort Logan; Genesis and Development," Journal of the Fort Logan Mental Health Center, Vol. 1, pp. 17-27, 1963.
2. SHAPIRO, A. K., "The Placebo Effect in the History of Medical Treatment," American Journal of Psychiatry, Vol. 116, p. 298, 1959.

NOTICE TO CONTRIBUTORS

The *Journal of the Fort Logan Mental Health Center* invites contributions in the areas of milieu therapy, social psychiatry, and related fields.

Manuscripts should be submitted in triplicate in the form in which the author wishes the paper to appear. Copy should be double-spaced, with margins of at least one and one-fourth inches.

References should be indicated by numbers in parentheses that refer to the list of references at the end of the article. The list should be alphabetical, and the names of the journals should not be abbreviated. The following format should be observed.

JAHODA, MARIE, *Current Concepts of Positive Mental Health*, New York, Basic Books, 1958.

RIESMAN, D., "Some Observations on Interviewing in a State Mental Hospital," *Bulletin of the Menninger Clinic*, Vol. 23, pp. 7-19, 1959.

The author should include an address to which inquiries regarding the article should be sent, in the form of a footnote indicated by an asterisk on the first page of the article.

Manuscripts should be addressed to Samuel Schiff, M.D., Editor, *Journal of the Fort Logan Mental Health Center*, 3520 West Oxford Avenue, Denver, Colorado 80236. Reprints will be furnished at the author's expense.

RECEIVED

SEP 01 2004

STATE PUBLICATIONS
Colorado State Library